

WO 2005/072475

PCT/US2005/003560

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EX05-004patentin.txt

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EX05-004patentin.txt

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<210> 6
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<400> 6

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 35 40 45
 Thr Gly Cys Cys Gly Thr Gly Gly Gly Ala Gly Cys Cys Thr Gly Ala
 50 55 60
 Ala Cys Gly Ala Gly Gly Cys Gly Gly Ala Gly Gly Cys Cys Gly Gly
 65 70 75 80
 Gly Gly Cys Gly Cys Thr Gly Cys Cys Cys Gly Cys Gly Gly Cys Gly
 85 90 95
 Gly Cys Cys Cys Gly Cys Ala Thr Gly Gly Gly Ala Cys Thr Gly Gly
 100 105 110
 Ala Gly Gly Cys Gly Cys Cys Gly Cys Gly Ala Gly Gly Ala Gly Gly
 115 120 125
 Gly Cys Gly Gly Cys Gly Gly Cys Gly Gly Cys Ala Gly Cys Cys Gly
 130 135 140
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 145 150 155 160
 Gly Gly Cys Cys Cys Gly Gly Cys Gly Cys Ala Gly Gly Gly Gly Cys
 165 170 175
 Cys Cys Cys Gly Gly Cys Gly Gly Gly Gly Cys Gly Gly Cys Cys Gly
 180 185 190
 Gly Ala Gly Gly Gly Gly Gly Gly Cys Gly Gly Gly Cys Cys Cys Thr
 195 200 205

EX05-004patentin.txt

Gly Gly Gly Cys Cys Cys Gly Gly Ala Cys Ala Gly Ala Gly Gly Gly
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 225 230 235 240
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 245 250 255
 Gly Cys Cys Thr Cys Gly Gly Gly Cys Cys Thr Gly Cys Gly Cys Cys
 260 265 270
 Gly Gly Gly Gly Ala Cys Ala Gly Ala Gly Ala Gly Thr Cys Cys Gly
 275 280 285
 Cys Ala Gly Gly Cys Ala Gly Ala Ala Thr Thr Cys Thr Gly Gly Ala
 290 295 300
 Cys Ala Gly Ala Cys Gly Gly Ala Cys Ala Gly Ala Cys Thr Gly Ala
 305 310 315 320
 Gly Cys Cys Cys Gly Cys Gly Gly Cys Ala Gly Cys Thr Gly Gly Cys
 325 330 335
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 340 345 350
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 355 360 365
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 370 375 380
 Thr Cys Cys Ala Gly Cys Cys Thr Cys Cys Gly Gly Ala Cys Gly Cys
 385 390 395 400
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 405 410 415
 Gly Thr Cys Ala Gly Ala Gly Cys Thr Gly Gly Ala Gly Ala Cys Gly
 420 425 430
 Ala Cys Thr Thr Gly Thr Cys Thr Thr Thr Gly Gly Ala Cys Gly Gly
 435 440 445
 Ala Gly Ala Cys Cys Gly Gly Gly Ala Cys Ala Gly Ala Thr Gly Gly
 450 455 460
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EX05-004patentin.txt

Cys Ala Cys Ala Gly Gly Thr Cys Cys Gly Ala Cys Cys Thr Cys Cys
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 500 505 510
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 515 520 525
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 530 535 540
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 545 550 555 560
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 580 585 590
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 595 600 605
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 645 650 655
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 660 665 670
 Thr Cys Ala Ala Ala Ala Gly Ala Gly Cys Cys Ala Ala Gly Thr Gly
 675 680 685
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 690 695 700
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 725 730 735
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 740 745 750

EX05-004patentin.txt

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 785 790 795 800
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 805 810 815
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 820 825 830
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 835 840 845
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 850 855 860
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 865 870 875 880
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 885 890 895
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 900 905 910
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 915 920 925
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 945 950 955 960
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 965 970 975
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 980 985 990
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 995 1000 1005
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 1010 1015 1020

EX05-004patentin.txt

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 1055 1060 1065
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 1070 1075 1080
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 1085 1090 1095
 Gly Gly Cys Thr Thr Cys Thr Cys Cys Thr Cys Thr Gly Cys Cys
 1100 1105 1110
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 1115 1120 1125
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 1130 1135 1140
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 1160 1165 1170
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 1175 1180 1185
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 1250 1255 1260
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EX05-004patentin.txt

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 1295 1300 1305
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 1310 1315 1320
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 1325 1330 1335
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 1340 1345 1350
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 1355 1360 1365
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 1385 1390 1395
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 1400 1405 1410
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 1460 1465 1470
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 1520 1525 1530

EX05-004patentin.txt

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EX05-004patentin.txt

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 1835 1840 1845
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 1865 1870 1875
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 Thr Cys Cys Cys Thr Cys Cys Thr Cys Thr Thr Cys Gly Thr Gly
 1895 1900 1905
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 1910 1915 1920
 Cys Thr Gly Gly Cys Cys Ala Ala Gly Gly Thr Cys Thr Gly Gly
 1925 1930 1935
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 1940 1945 1950
 Ala Ala Gly Ala Cys Gly Gly Thr Gly Gly Cys Cys Thr Thr Gly
 1955 1960 1965
 Cys Cys Cys Gly Ala Cys Cys Ala Cys Cys Ala Gly Ala Cys Gly
 1970 1975 1980
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 1985 1990 1995
 Cys Cys Cys Thr Gly Gly Gly Cys Thr Gly Ala Gly Gly Gly Cys
 2000 2005 2010
 Ala Ala Cys Cys Gly Thr Gly Ala Gly Gly Ala Cys Gly Gly Cys
 2015 2020 2025
 Thr Ala Cys Cys Thr Cys Thr Gly Gly Gly Gly Cys Cys Thr Gly
 2030 2035 2040

EX05-004patentin.txt

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 2240 2245 2250
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 2255 2260 2265
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 2285 2290 2295

EX05-004patentin.txt

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 Thr Gly Ala Gly Gly Gly Gly Cys Thr Gly Cys Cys Cys Thr Gly
 2375 2380 2385
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EX05-004patentin.txt

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 2795 2800 2805

EX05-004patentin.txt

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 2885 2890 2895
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 3035 3040 3045
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 3050 3055 3060

EX05-004patentin.txt

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 Thr Gly Gly Cys Cys Cys Thr Thr Gly Ala Gly Gly Cys Thr Gly
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 3305 3310 3315

EX05-004patentin.txt

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Cys Thr Gly Ala Gly Cys Cys Thr Ala Cys Cys Cys
 3335 3340 3345

Ala Thr Gly Ala Cys Ala Ala Cys Ala Cys Cys Cys Ala Ala
 3350 3355 3360

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<210> 7
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<400> 7

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 20 25 30

Cys Gly Ala Gly Gly Cys Gly Gly Ala Gly Gly Cys Cys Gly Gly Gly
 35 40 45

Gly Cys Gly Cys Thr Gly Cys Cys Cys Gly Cys Gly Gly Cys Gly Gly
 50 55 60

Cys Cys Cys Gly Cys Ala Thr Gly Gly Gly Ala Cys Thr Gly Gly Ala
 65 70 75 80

Gly Gly Cys Gly Cys Cys Gly Cys Gly Ala Gly Gly Ala Gly Gly Gly
 85 90 95

Cys Gly Gly Cys Gly Gly Cys Gly Gly Cys Ala Gly Cys Cys Gly Gly
 100 105 110

Gly Ala Cys Ala Gly Cys Ala Gly Cys Gly Ala Cys Cys Thr Gly Gly
 115 120 125

Gly Cys Cys Cys Gly Gly Cys Gly Cys Ala Gly Gly Gly Cys Cys
 130 135 140

EX05-004patentin.txt

Cys Cys Gly Gly Cys Gly Gly Gly Gly Cys Gly Gly Cys Cys Gly Gly
 145 150 155 160
 Ala Gly Gly Gly Gly Gly Gly Cys Gly Gly Gly Cys Cys Cys Thr Gly
 165 170 175
 Gly Gly Cys Cys Cys Gly Gly Ala Cys Ala Gly Ala Gly Gly Gly Gly
 180 185 190
 Thr Cys Cys Ala Gly Cys Cys Thr Cys Cys Ala Cys Ala Gly Cys Gly
 195 200 205
 Ala Gly Cys Cys Thr Gly Ala Gly Ala Gly Gly Gly Cys Cys Gly Gly
 210 215 220
 Cys Cys Thr Cys Gly Gly Gly Cys Cys Thr Gly Cys Gly Cys Cys Gly
 225 230 235 240
 Gly Gly Gly Ala Cys Ala Gly Ala Gly Ala Gly Thr Cys Cys Gly Cys
 245 250 255
 Ala Gly Gly Cys Ala Gly Ala Ala Thr Thr Cys Thr Gly Gly Ala Cys
 260 265 270
 Ala Gly Ala Cys Gly Gly Ala Cys Ala Gly Ala Cys Thr Gly Ala Gly
 275 280 285
 Cys Cys Cys Gly Cys Gly Gly Cys Ala Gly Cys Thr Gly Gly Cys Cys
 290 295 300
 Thr Thr Gly Gly Ala Gly Thr Ala Gly Ala Gly Ala Cys Cys Gly Ala
 305 310 315 320
 Gly Ala Gly Gly Cys Cys Cys Ala Ala Gly Cys Ala Ala Ala Ala Gly
 325 330 335
 Ala Cys Gly Gly Ala Gly Cys Cys Ala Gly Ala Cys Ala Gly Gly Thr
 340 345 350
 Cys Cys Ala Gly Cys Cys Thr Cys Cys Gly Gly Ala Cys Gly Cys Ala
 355 360 365
 Thr Cys Thr Ala Gly Ala Ala Thr Gly Gly Ala Gly Cys Thr Gly Gly
 370 375 380
 Thr Cys Ala Gly Ala Gly Cys Thr Gly Gly Ala Gly Ala Cys Gly Ala
 385 390 395 400
 Cys Thr Thr Gly Thr Cys Thr Thr Thr Gly Gly Ala Cys Gly Gly Ala
 405 410 415

EX05-004patentin.txt

Gly Ala Cys Cys Gly Gly Gly Ala Cys Ala Gly Ala Thr Gly Gly Cys
 420 425 430
 Cys Thr Thr Thr Gly Gly Ala Cys Thr Gly Ala Thr Cys Cys Gly Cys
 435 440 445
 Ala Cys Ala Gly Gly Thr Cys Cys Gly Ala Cys Cys Thr Cys Cys Ala
 450 455 460
 Gly Thr Thr Thr Cys Ala Gly Cys Cys Cys Gly Ala Gly Gly Ala Gly
 465 470 475 480
 Gly Cys Cys Ala Gly Cys Cys Cys Cys Thr Gly Gly Ala Cys Ala Cys
 485 490 495
 Ala Gly Cys Cys Ala Gly Gly Gly Gly Thr Thr Cys Ala Thr Gly Gly
 500 505 510
 Gly Cys Cys Cys Thr Gly Gly Ala Cys Ala Gly Ala Gly Cys Thr Gly
 515 520 525
 Gly Ala Ala Ala Cys Gly Cys Ala Thr Gly Gly Gly Thr Cys Ala Cys
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 545 550 555 560
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 565 570 575
 Gly Ala Thr Ala Ala Cys Cys Thr Cys Thr Gly Gly Ala Cys Cys Cys
 580 585 590
 Ala Cys Cys Ala Gly Ala Ala Cys Ala Gly Thr Thr Cys Cys Ala Gly
 595 600 605
 Cys Cys Thr Cys Cys Ala Gly Ala Cys Thr Cys Ala Cys Cys Cys Ala
 610 615 620
 Gly Ala Ala Gly Gly Ala Gly Cys Cys Thr Gly Thr Cys Cys Cys Thr
 625 630 635 640
 Cys Ala Ala Ala Ala Gly Ala Gly Cys Cys Ala Ala Gly Thr Gly Cys
 645 650 655
 Thr Gly Ala Thr Gly Gly Cys Thr Cys Cys Thr Gly Gly Ala Ala Ala
 660 665 670
 Gly Ala Ala Thr Thr Gly Thr Ala Thr Ala Cys Thr Gly Ala Thr Gly
 675 680 685

EX05-004patentin.txt

Gly Cys Thr Cys Cys Ala Gly Gly Ala Cys Ala Cys Ala Ala Cys Ala
 690 695 700

Gly Gly Ala Thr Ala Thr Thr Gly Ala Ala Gly Gly Thr Cys Cys Cys
 705 710 715 720

Thr Gly Gly Ala Cys Ala Gly Ala Gly Cys Cys Ala Thr Ala Thr Ala
 725 730 735

Cys Thr Gly Ala Thr Gly Gly Cys Thr Cys Cys Cys Ala Gly Ala Ala
 740 745 750

Ala Ala Ala Ala Cys Ala Gly Gly Ala Thr Ala Cys Thr Gly Ala Ala
 755 760 765

Gly Cys Ala Gly Cys Cys Ala Gly Gly Ala Ala Ala Cys Ala Gly Cys
 770 775 780

Cys Thr Gly Gly Cys Ala Cys Thr Gly Gly Thr Gly Gly Thr Thr Thr
 785 790 795 800

Cys Cys Ala Ala Ala Thr Ala Cys Ala Ala Cys Ala Gly Gly Ala Thr
 805 810 815

Ala Cys Thr Gly Ala Thr Gly Gly Cys Thr Cys Cys Thr Gly Gly Ala
 820 825 830

Cys Ala Cys Ala Ala Cys Cys Thr Ala Gly Cys Ala Cys Thr Gly Ala
 835 840 845

Cys Gly Gly Thr Thr Cys Cys Cys Ala Gly Ala Cys Ala Gly Cys Ala
 850 855 860

Cys Cys Thr Gly Gly Gly Ala Cys Ala Gly Ala Cys Thr Gly Cys Cys
 865 870 875 880

Thr Cys Thr Thr Gly Gly Gly Ala Gly Ala Gly Cys Cys Thr Gly Ala
 885 890 895

Gly Gly Ala Thr Gly Gly Cys Cys Cys Ala Thr Thr Ala Gly Ala Gly
 900 905 910

Gly Ala Ala Cys Cys Ala Gly Ala Gly Cys Cys Thr Gly Gly Ala Gly
 915 920 925

Ala Ala Thr Thr Gly Cys Thr Gly Ala Cys Thr Cys Ala Cys Cys Thr
 930 935 940

Gly Thr Ala Cys Thr Cys Thr Cys Ala Cys Cys Thr Gly Ala Ala Gly
 945 950 955 960

EX05-004patentin.txt

Thr Gly Thr Ala Gly Cys Cys Cys Cys Thr Gly Thr Gly Cys Cys
 965 970 975
 Cys Thr Gly Thr Gly Cys Cys Cys Cys Gly Cys Cys Thr Cys Ala Thr
 980 985 990
 Cys Ala Thr Thr Ala Cys Cys Cys Cys Thr Gly Ala Gly Ala Cys Cys
 995 1000 1005
 Cys Cys Thr Gly Ala Gly Cys Cys Thr Gly Ala Gly Gly Cys Cys
 1010 1015 1020
 Cys Ala Gly Cys Cys Ala Gly Thr Gly Gly Gly Ala Cys Cys Cys
 1025 1030 1035
 Cys Cys Cys Thr Cys Cys Cys Gly Gly Gly Thr Thr Gly Ala Gly
 1040 1045 1050
 Gly Gly Gly Gly Gly Cys Ala Gly Cys Gly Gly Cys Gly Gly Cys
 1055 1060 1065
 Thr Thr Cys Thr Cys Cys Thr Cys Thr Gly Cys Cys Thr Cys Thr
 1070 1075 1080
 Thr Cys Thr Thr Thr Cys Gly Ala Cys Gly Ala Gly Thr Cys Thr
 1085 1090 1095
 Gly Ala Gly Gly Ala Thr Gly Ala Cys Gly Thr Gly Gly Thr Gly
 1100 1105 1110
 Gly Cys Cys Gly Gly Gly Gly Gly Cys Gly Gly Ala Gly Gly Thr
 1115 1120 1125
 Gly Cys Cys Ala Gly Cys Gly Ala Thr Cys Cys Cys Gly Ala Gly
 1130 1135 1140
 Gly Ala Cys Ala Gly Gly Thr Cys Thr Gly Gly Gly Ala Gly Cys
 1145 1150 1155
 Ala Ala Ala Cys Cys Cys Thr Gly Gly Ala Ala Gly Ala Ala Gly
 1160 1165 1170
 Cys Thr Gly Ala Ala Gly Ala Cys Ala Gly Thr Thr Cys Thr Gly
 1175 1180 1185
 Ala Ala Gly Thr Ala Thr Thr Cys Ala Cys Cys Cys Thr Thr Thr
 1190 1195 1200
 Gly Thr Gly Gly Thr Cys Thr Cys Cys Thr Thr Cys Cys Gly Ala
 1205 1210 1215

EX05-004patentin.txt

Ala Ala Ala Cys Ala Cys Thr Thr Gly Gly
 1220 1225 1230

Gly Thr Cys Cys Ala Gly Cys Thr Thr Thr Cys Thr Gly Gly Ala
 1235 1240 1245

Cys Ala Thr Gly Cys Thr Gly Gly Gly Ala Ala Cys Thr Thr Cys
 1250 1255 1260

Cys Ala Gly Gly Cys Ala Gly Gly Ala Gly Ala Gly Gly Ala Thr
 1265 1270 1275

Gly Gly Thr Cys Gly Gly Ala Thr Thr Cys Thr Gly Ala Ala Ala
 1280 1285 1290

Cys Gly Thr Thr Thr Cys Thr Gly Thr Cys Ala Gly Thr Gly Thr
 1295 1300 1305

Gly Ala Gly Cys Ala Gly Cys Gly Cys Ala Gly Cys Cys Thr Gly
 1310 1315 1320

Gly Ala Gly Cys Ala Gly Cys Thr Gly Ala Thr Gly Ala Ala Ala
 1325 1330 1335

Gly Ala Cys Cys Cys Gly Cys Thr Gly Cys Gly Ala Cys Cys Thr
 1340 1345 1350

Thr Thr Cys Gly Thr Gly Cys Cys Thr Gly Cys Cys Thr Ala Cys
 1355 1360 1365

Thr Ala Thr Gly Gly Cys Ala Thr Gly Gly Thr Gly Cys Thr Gly
 1370 1375 1380

Cys Ala Gly Gly Ala Thr Gly Gly Cys Cys Ala Gly Ala Cys Cys
 1385 1390 1395

Thr Thr Cys Ala Ala Cys Cys Ala Gly Ala Thr Gly Gly Ala Ala
 1400 1405 1410

Gly Ala Cys Cys Thr Cys Cys Thr Gly Gly Cys Thr Gly Ala Cys
 1415 1420 1425

Thr Thr Thr Gly Ala Gly Gly Gly Cys Cys Cys Cys Thr Cys Cys
 1430 1435 1440

Ala Thr Thr Ala Thr Gly Gly Ala Cys Thr Gly Cys Ala Ala Gly
 1445 1450 1455

Ala Thr Gly Gly Gly Cys Ala Gly Cys Ala Gly Gly Ala Cys Cys
 1460 1465 1470

EX05-004patentin.txt

Thr Ala Thr Cys Thr Gly Gly Ala Ala Gly Ala Gly Gly Ala Gly
 1475 1480 1485

Cys Thr Ala Gly Thr Gly Ala Ala Gly Gly Cys Ala Cys Gly Gly
 1490 1495 1500

Gly Ala Ala Cys Gly Thr Cys Cys Cys Gly Thr Cys Cys Cys
 1505 1510 1515

Cys Gly Gly Ala Ala Gly Gly Ala Cys Ala Thr Gly Thr Ala Thr
 1520 1525 1530

Gly Ala Gly Ala Ala Gly Ala Thr Gly Gly Thr Gly Gly Cys Thr
 1535 1540 1545

Gly Thr Gly Gly Ala Cys Cys Cys Thr Gly Gly Gly Gly Cys Cys
 1550 1555 1560

Cys Cys Thr Ala Cys Cys Cys Cys Thr Gly Ala Gly Gly Ala Gly
 1565 1570 1575

Cys Ala Thr Gly Cys Cys Cys Ala Gly Gly Gly Thr Gly Cys Ala
 1580 1585 1590

Gly Thr Cys Ala Cys Cys Ala Ala Gly Cys Cys Cys Cys Gly Cys
 1595 1600 1605

Thr Ala Cys Ala Thr Gly Cys Ala Gly Thr Gly Gly Ala Gly Gly
 1610 1615 1620

Gly Ala Ala Ala Cys Cys Ala Thr Gly Ala Gly Cys Thr Cys Cys
 1625 1630 1635

Ala Cys Cys Thr Cys Thr Ala Cys Cys Cys Thr Gly Gly Gly Cys
 1640 1645 1650

Thr Thr Cys Cys Gly Gly Ala Thr Cys Gly Ala Gly Gly Gly Cys
 1655 1660 1665

Ala Thr Cys Ala Ala Gly Ala Ala Gly Gly Cys Ala Gly Ala Thr
 1670 1675 1680

Gly Gly Gly Ala Cys Cys Thr Gly Thr Ala Ala Cys Ala Cys Cys
 1685 1690 1695

Ala Ala Cys Thr Thr Cys Ala Ala Gly Ala Ala Gly Ala Cys Gly
 1700 1705 1710

Cys Ala Gly Gly Cys Ala Cys Thr Gly Gly Ala Gly Cys Ala Gly
 1715 1720 1725

EX05-004patentin.txt

Gly Thr Gly Ala Cys Ala Ala Ala Ala Gly Thr Gly Cys Thr Gly
 1730 1735 1740

Gly Ala Gly Gly Ala Cys Thr Thr Cys Gly Thr Gly Gly Ala Thr
 1745 1750 1755

Gly Gly Ala Gly Ala Cys Cys Ala Cys Gly Thr Cys Ala Thr Cys
 1760 1765 1770

Cys Thr Gly Cys Ala Ala Ala Ala Gly Thr Ala Cys Gly Thr Gly
 1775 1780 1785

Gly Cys Ala Thr Gly Cys Cys Thr Ala Gly Ala Ala Gly Ala Ala
 1790 1795 1800

Cys Thr Thr Cys Gly Thr Gly Ala Ala Gly Cys Thr Cys Thr Gly
 1805 1810 1815

Gly Ala Gly Ala Thr Cys Thr Cys Cys Cys Cys Thr Thr Cys
 1820 1825 1830

Thr Thr Cys Ala Ala Gly Ala Cys Cys Cys Ala Cys Gly Ala Gly
 1835 1840 1845

Gly Thr Gly Gly Thr Ala Gly Gly Cys Ala Gly Cys Thr Cys Cys
 1850 1855 1860

Cys Thr Cys Cys Thr Cys Thr Thr Cys Gly Thr Gly Cys Ala Cys
 1865 1870 1875

Gly Ala Cys Cys Ala Cys Ala Cys Cys Gly Gly Cys Cys Thr Gly
 1880 1885 1890

Gly Cys Cys Ala Ala Gly Gly Thr Cys Thr Gly Gly Ala Thr Gly
 1895 1900 1905

Ala Thr Ala Gly Ala Cys Thr Thr Cys Gly Gly Cys Ala Ala Gly
 1910 1915 1920

Ala Cys Gly Gly Thr Gly Gly Cys Cys Thr Thr Gly Cys Cys Cys
 1925 1930 1935

Gly Ala Cys Cys Ala Cys Cys Ala Gly Ala Cys Gly Cys Thr Cys
 1940 1945 1950

Ala Gly Cys Cys Ala Cys Ala Gly Gly Cys Thr Gly Cys Cys Cys
 1955 1960 1965

Thr Gly Gly Gly Cys Thr Gly Ala Gly Gly Gly Cys Ala Ala Cys
 1970 1975 1980

EX05-004patentin.txt
 Cys Gly Thr Gly Ala Gly Gly Ala Cys Gly Gly Cys Thr Ala Cys
 1985 1990 1995

Cys Thr Cys Thr Gly Gly Gly Gly Cys Cys Thr Gly Gly Ala Cys
 2000 2005 2010

Ala Ala Cys Ala Thr Gly Ala Thr Cys Thr Gly Cys Cys Thr Cys
 2015 2020 2025

Cys Thr Gly Cys Ala Gly Gly Gly Gly Cys Thr Gly Gly Cys Ala
 2030 2035 2040

Cys Ala Gly Ala Gly Cys Thr Gly Ala
 2045 2050

<210> 8
 <211> 461
 <212> PRT
 <213> Homo sapiens

<400> 8

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 1 5 10 15

Arg Pro Cys Ser Pro Gly Leu Glu Arg Ala Pro Arg Arg Ser Val Gly
 20 25 30

Glu Leu Arg Leu Leu Phe Glu Ala Arg Cys Ala Ala Val Ala Ala Ala
 35 40 45

Ala Ala Ala Gly Glu Pro Arg Ala Arg Gly Ala Lys Arg Arg Gly Gly
 50 55 60

Gln Val Pro Asn Gly Leu Pro Arg Ala Pro Pro Ala Pro Val Ile Pro
 65 70 75 80

Gln Leu Thr Val Thr Ala Glu Glu Pro Asp Val Pro Pro Thr Ser Pro
 85 90 95

Gly Pro Pro Glu Arg Glu Arg Asp Cys Leu Pro Ala Ala Gly Ser Ser
 100 105 110

His Leu Gln Gln Pro Arg Arg Leu Ser Thr Ser Ser Val Ser Ser Thr
 115 120 125

Gly Ser Ser Ser Leu Leu Glu Asp Ser Glu Asp Asp Leu Leu Ser Asp
 130 135 140

Ser Glu Ser Arg Ser Arg Gly Asn Val Gln Leu Glu Ala Gly Glu Asp
 145 150 155 160

Val Gly Gln Lys Asn His Trp Gln Lys Ile Arg Thr Met Val Asn Leu
 Page 31

EX05-004patentin.txt
170

165

175

Pro Val Ile Ser Pro Phe Lys Lys Arg Tyr Ala Trp Val Gln Leu Ala
180 185 190

Gly His Thr Gly Ser Phe Lys Ala Ala Gly Thr Ser Gly Leu Ile Leu
195 200 205

Lys Arg Cys Ser Glu Pro Glu Arg Tyr Cys Leu Ala Arg Leu Met Ala
210 215 220

Asp Ala Leu Arg Gly Cys Val Pro Ala Phe His Gly Val Val Glu Arg
225 230 235 240

Asp Gly Glu Ser Tyr Leu Gln Leu Gln Asp Leu Leu Asp Gly Phe Asp
245 250 255

Gly Pro Cys Val Leu Asp Cys Lys Met Gly Val Arg Thr Tyr Leu Glu
260 265 270

Glu Glu Leu Thr Lys Ala Arg Glu Arg Pro Lys Leu Arg Lys Asp Met
275 280 285

Tyr Lys Lys Met Leu Ala Val Asp Pro Glu Ala Pro Thr Glu Glu Glu
290 295 300

His Ala Gln Arg Ala Val Thr Lys Pro Arg Tyr Met Gln Trp Arg Glu
305 310 315 320

Gly Ile Ser Ser Ser Thr Thr Leu Gly Phe Arg Ile Glu Gly Ile Lys
325 330 335

Lys Ala Asp Gly Ser Cys Ser Thr Asp Phe Lys Thr Thr Arg Ser Arg
340 345 350

Glu Gln Val Leu Arg Val Phe Glu Glu Phe Val Gln Gly Asp Glu Glu
355 360 365

Val Leu Arg Arg Tyr Leu Asn Arg Leu Gln Gln Ile Arg Asp Thr Leu
370 375 380

Glu Val Ser Glu Phe Phe Arg Arg His Glu Val Ile Gly Ser Ser Leu
385 390 395 400

Leu Phe Val His Asp His Cys His Arg Ala Gly Val Trp Leu Ile Asp
405 410 415

Phe Gly Lys Thr Thr Pro Leu Pro Asp Gly Gln Ile Leu Asp His Arg
420 425 430

Arg Pro Trp Glu Glu Gly Asn Arg Glu Asp Gly Tyr Leu Leu Gly Leu
Page 32

EX05-004patentin.txt
440 445

435

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<211> 946
<212> PRT
<213> Homo sapiens

<400> 9

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35 40 45Ser Pro Gly Arg Gly Ala Ser Phe Leu Phe Pro Pro Ala Glu Ser Leu
50 55 60Ser Pro Glu Glu Pro Arg Ser Pro Gly Gly Trp Arg Ser Gly Arg Arg
65 70 75 80Arg Leu Asn Ser Ser Ser Gly Ser Gly Ser Gly Ser Ser Ser
85 90 95Val Ser Ser Pro Ser Trp Ala Gly Arg Leu Arg Gly Asp Arg Gln Gln
100 105 110Val Val Ala Ala Gly Thr Leu Ser Pro Pro Gly Pro Glu Glu Ala Lys
115 120 125Arg Lys Leu Arg Ile Leu Gln Arg Glu Leu Gln Asn Val Gln Val Asn
130 135 140Gln Lys Val Gly Met Phe Glu Ala His Ile Gln Ala Gln Ser Ser Ala
145 150 155 160Ile Gln Ala Pro Arg Ser Pro Arg Leu Gly Arg Ala Arg Ser Pro Ser
165 170 175Pro Cys Pro Phe Arg Ser Ser Ser Gln Pro Pro Gly Arg Val Leu Val
180 185 190Gln Gly Ala Arg Ser Glu Glu Arg Arg Thr Lys Ser Trp Gly Glu Gln
195 200 205Cys Pro Glu Thr Ser Gly Thr Asp Ser Gly Arg Lys Gly Gly Pro Ser
210 215 220

EX05-004patentin.txt

Leu Cys Ser Ser Gln Val Lys Lys Gly Met Pro Pro Leu Pro Gly Arg
 225 230 235 240
 Ala Ala Pro Thr Gly Ser Glu Ala Gln Gly Pro Ser Ala Phe Val Arg
 245 250 255
 Met Glu Lys Gly Ile Pro Ala Ser Pro Arg Cys Gly Ser Pro Thr Ala
 260 265 270
 Met Glu Ile Asp Lys Arg Gly Ser Pro Thr Pro Gly Thr Arg Ser Cys
 275 280 285
 Leu Ala Pro Ser Leu Gly Leu Phe Gly Ala Ser Leu Thr Met Ala Thr
 290 295 300
 Glu Val Ala Ala Arg Val Thr Ser Thr Gly Pro His Arg Pro Gln Asp
 305 310 315 320
 Leu Ala Leu Thr Glu Pro Ser Gly Arg Ala Arg Glu Leu Glu Asp Leu
 325 330 335
 Gln Pro Pro Glu Ala Leu Val Glu Arg Gln Gly Gln Phe Leu Gly Ser
 340 345 350
 Glu Thr Ser Pro Ala Pro Glu Arg Gly Gly Pro Arg Asp Gly Glu Pro
 355 360 365
 Pro Gly Lys Met Gly Lys Gly Tyr Leu Pro Cys Gly Met Pro Gly Ser
 370 375 380
 Gly Glu Pro Glu Val Gly Lys Arg Pro Glu Glu Thr Thr Val Ser Val
 385 390 395 400
 Gln Ser Ala Glu Ser Ser Asp Ser Leu Ser Trp Ser Arg Leu Pro Arg
 405 410 415
 Ala Leu Ala Ser Val Gly Pro Glu Glu Ala Arg Ser Gly Ala Pro Val
 420 425 430
 Gly Gly Gly Arg Trp Gln Leu Ser Asp Arg Val Glu Gly Gly Ser Pro
 435 440 445
 Thr Leu Gly Leu Leu Gly Gly Ser Pro Ser Ala Gln Pro Gly Thr Gly
 450 455 460
 Asn Val Glu Ala Gly Ile Pro Ser Gly Arg Met Leu Glu Pro Leu Pro
 465 470 475 480
 Cys Trp Asp Ala Ala Lys Asp Leu Lys Glu Pro Gln Cys Pro Pro Gly
 485 490 495

EX05-004patentin.txt

Asp Arg Val Gly Val Gln Pro Gly Asn Ser Arg Val Trp Gln Gly Thr
 500 505 510
 Met Glu Lys Ala Gly Leu Ala Trp Thr Arg Gly Thr Gly Val Gln Ser
 515 520 525
 Glu Gly Thr Trp Glu Ser Gln Arg Gln Asp Ser Asp Ala Leu Pro Ser
 530 535 540
 Pro Glu Leu Leu Pro Gln Asp Gln Asp Lys Pro Phe Leu Arg Lys Ala
 545 550 555 560
 Cys Ser Pro Ser Asn Ile Pro Ala Val Ile Ile Thr Asp Met Gly Thr
 565 570 575
 Gln Glu Asp Gly Ala Leu Glu Glu Thr Gln Gly Ser Pro Arg Gly Asn
 580 585 590
 Leu Pro Leu Arg Lys Leu Ser Ser Ser Ala Ser Ser Thr Gly Phe
 595 600 605
 Ser Ser Ser Tyr Glu Asp Ser Glu Glu Asp Ile Ser Ser Asp Pro Glu
 610 615 620
 Arg Thr Leu Asp Pro Asn Ser Ala Phe Leu His Thr Leu Asp Gln Gln
 625 630 635 640
 Lys Pro Arg Val Ser Lys Ser Trp Arg Lys Ile Lys Asn Met Val His
 645 650 655
 Trp Ser Pro Phe Val Met Ser Phe Lys Lys Lys Tyr Pro Trp Ile Gln
 660 665 670
 Leu Ala Gly His Ala Gly Ser Phe Lys Ala Ala Ala Asn Gly Arg Ile
 675 680 685
 Leu Lys Lys His Cys Glu Ser Glu Gln Arg Cys Leu Asp Arg Leu Met
 690 695 700
 Val Asp Val Leu Arg Pro Phe Val Pro Ala Tyr His Gly Asp Val Val
 705 710 715 720
 Lys Asp Gly Glu Arg Tyr Asn Gln Met Asp Asp Leu Leu Ala Asp Phe
 725 730 735
 Asp Ser Pro Cys Val Met Asp Cys Lys Met Gly Ile Arg Thr Tyr Leu
 740 745 750
 Glu Glu Glu Leu Thr Lys Ala Arg Lys Lys Pro Ser Leu Arg Lys Asp
 755 760 765

EX05-004patentin.txt

Met Tyr Gln Lys Met Ile Glu Val Asp Pro Glu Ala Pro Thr Glu Glu
 770 775 780

Glu Lys Ala Gln Arg Ala Val Thr Lys Pro Arg Tyr Met Gln Trp Arg
 785 790 795 800

Glu Thr Ile Ser Ser Thr Ala Thr Leu Gly Phe Arg Ile Glu Gly Ile
 805 810 815

Lys Lys Glu Asp Gly Thr Val Asn Arg Asp Phe Lys Lys Thr Lys Thr
 820 825 830

Arg Glu Gln Val Thr Glu Ala Phe Arg Glu Phe Thr Lys Gly Asn His
 835 840 845

Asn Ile Leu Ile Ala Tyr Arg Asp Arg Leu Lys Ala Ile Arg Thr Thr
 850 855 860

Leu Glu Val Ser Pro Phe Phe Lys Cys His Glu Val Ile Gly Ser Ser
 865 870 875 880

Leu Leu Phe Ile His Asp Lys Lys Glu Gln Ala Lys Val Trp Met Ile
 885 890 895

Asp Phe Gly Lys Thr Thr Pro Leu Pro Glu Gly Gln Thr Leu Gln His
 900 905 910

Asp Val Pro Trp Gln Glu Gly Asn Arg Glu Asp Gly Tyr Leu Ser Gly
 915 920 925

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 930 935 940

Leu Ala
 945

<210> 10
 <211> 683
 <212> PRT
 <213> Homo sapiens

<400> 10

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Ala Leu Pro Ala Ala Ala Arg Met Gly Leu Glu Ala Pro Arg Gly Gly
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Arg Arg Arg Gln Pro Gly Gln Gln Arg Pro Gly Pro Gly Ala Gly Ala
 35 40 45

EX05-004patentin.txt

Pro Ala Gly Arg Pro Glu Gly Gly Gly Pro Trp Ala Arg Thr Glu Gly
 50 55 60

Ser Ser Leu His Ser Glu Pro Glu Arg Ala Gly Leu Gly Pro Ala Pro
 65 70 75 80

Gly Thr Glu Ser Pro Gln Ala Glu Phe Trp Thr Asp Gly Gln Thr Glu
 85 90 95

Pro Ala Ala Ala Gly Leu Gly Val Glu Thr Glu Arg Pro Lys Gln Lys
 100 105 110

Thr Glu Pro Asp Arg Ser Ser Leu Arg Thr His Leu Glu Trp Ser Trp
 115 120 125

Ser Glu Leu Glu Thr Thr Cys Leu Trp Thr Glu Thr Gly Thr Asp Gly
 130 135 140

Leu Trp Thr Asp Pro His Arg Ser Asp Leu Gln Phe Gln Pro Glu Glu
 145 150 155 160

Ala Ser Pro Trp Thr Gln Pro Gly Val His Gly Pro Trp Thr Glu Leu
 165 170 175

Glu Thr His Gly Ser Gln Thr Gln Pro Glu Arg Val Lys Ser Trp Ala
 180 185 190

Asp Asn Leu Trp Thr His Gln Asn Ser Ser Ser Leu Gln Thr His Pro
 195 200 205

Glu Gly Ala Cys Pro Ser Lys Glu Pro Ser Ala Asp Gly Ser Trp Lys
 210 215 220

Glu Leu Tyr Thr Asp Gly Ser Arg Thr Gln Gln Asp Ile Glu Gly Pro
 225 230 235 240

Trp Thr Glu Pro Tyr Thr Asp Gly Ser Gln Lys Lys Gln Asp Thr Glu
 245 250 255

Ala Ala Arg Lys Gln Pro Gly Thr Gly Gly Phe Gln Ile Gln Gln Asp
 260 265 270

Thr Asp Gly Ser Trp Thr Gln Pro Ser Thr Asp Gly Ser Gln Thr Ala
 275 280 285

Pro Gly Thr Asp Cys Leu Leu Gly Glu Pro Glu Asp Gly Pro Leu Glu
 290 295 300

Glu Pro Glu Pro Gly Glu Leu Leu Thr His Leu Tyr Ser His Leu Lys
 305 310 315 320

EX05-004patentin.txt

Cys Ser Pro Leu Cys Pro Val Pro Arg Leu Ile Ile Thr Pro Glu Thr
 325 330 335
 Pro Glu Pro Glu Ala Gln Pro Val Gly Pro Pro Ser Arg Val Glu Gly
 340 345 350
 Gly Ser Gly Gly Phe Ser Ser Ala Ser Ser Phe Asp Glu Ser Glu Asp
 355 360 365
 Asp Val Val Ala Gly Gly Gly Gly Ala Ser Asp Pro Glu Asp Arg Ser
 370 375 380
 Gly Ser Lys Pro Trp Lys Lys Leu Lys Thr Val Leu Lys Tyr Ser Pro
 385 390 395 400
 Phe Val Val Ser Phe Arg Lys His Tyr Pro Trp Val Gln Leu Ser Gly
 405 410 415
 His Ala Gly Asn Phe Gln Ala Gly Glu Asp Gly Arg Ile Leu Lys Arg
 420 425 430
 Phe Cys Gln Cys Glu Gln Arg Ser Leu Glu Gln Leu Met Lys Asp Pro
 435 440 445
 Leu Arg Pro Phe Val Pro Ala Tyr Tyr Gly Met Val Leu Gln Asp Gly
 450 455 460
 Gln Thr Phe Asn Gln Met Glu Asp Leu Leu Ala Asp Phe Glu Gly Pro
 465 470 475 480
 Ser Ile Met Asp Cys Lys Met Gly Ser Arg Thr Tyr Leu Glu Glu Glu
 485 490 495
 Leu Val Lys Ala Arg Glu Arg Pro Arg Pro Arg Lys Asp Met Tyr Glu
 500 505 510
 Lys Met Val Ala Val Asp Pro Gly Ala Pro Thr Pro Glu Glu His Ala
 515 520 525
 Gln Gly Ala Val Thr Lys Pro Arg Tyr Met Gln Trp Arg Glu Thr Met
 530 535 540
 Ser Ser Thr Ser Thr Leu Gly Phe Arg Ile Glu Gly Ile Lys Lys Ala
 545 550 555 560
 Asp Gly Thr Cys Asn Thr Asn Phe Lys Lys Thr Gln Ala Leu Glu Gln
 565 570 575
 Val Thr Lys Val Leu Glu Asp Phe Val Asp Gly Asp His Val Ile Leu
 580 585 590

EX05-004patentin.txt

Gln Lys Tyr Val Ala Cys Leu Glu Glu Leu Arg Glu Ala Leu Glu Ile
595 600 605

Ser Pro Phe Phe Lys Thr His Glu Val Val Gly Ser Ser Leu Leu Phe
610 615 620

Val His Asp His Thr Gly Leu Ala Lys Val Trp Met Ile Asp Phe Gly
625 630 635 640

Lys Thr Val Ala Leu Pro Asp His Gln Thr Leu Ser His Arg Leu Pro
645 650 655

Trp Ala Glu Gly Asn Arg Glu Asp Gly Tyr Leu Trp Gly Leu Asp Asn
660 665 670

Met Ile Cys Leu Leu Gln Gly Leu Ala Gln Ser
675 680